

ON THE LOCALITIES OF A. ADAMS' JAPANESE HELICIDÆ.

BY HENRY A. PILSBRY.

The paper by Dr. Arthur Adams on the species of Helicidæ found in Japan,¹ published in 1868, would have formed a foundation for subsequent faunistic work if the species had been recognizably defined. As it is, that production has been the chief difficulty with which recent investigators have had to contend.

The numerous new species described by Adams are so inadequately defined that it is well-nigh impossible to recognize them without specimens from the original localities to compare with his descriptions. And here another obstacle is met, for a part of his localities are out-of-the-way places, not indicated on ordinary maps, some of them even nameless in Hassenstein's magnificent folio atlas of Japan.

Some little assistance is afforded by Adams' *Travels*,² an innocuous book written in a bread-and-butter-miss style and singularly free from information, useful or otherwise. My colleague, Mr. Benjamin Smith Lyman, has rendered indispensable assistance by translating names from Japanese maps and various kind suggestions. Finally, I am indebted to the Hydrographic Department of H. M. Admiralty for information from the log of the "Actæon," fixing the location of certain places.

From these and other sources of information I have traced all of the localities where Adams collected land snails. In the account

¹ *Annals and Magazine of Natural History* (ser. 4), I, pp. 459-472 (June, 1868).

² *Travels of a Naturalist in Japan and Manchuria*, by Arthur Adams, F.L.S., Staff-Surgeon R. N. London: Hurst and Blackett, 1870.

Adams was surgeon of H. M. S. "Actæon," of the Hydrographic Survey. The "Actæon" after passing through Corea Strait skirted the shores of the mainland, landing at various places, as far north as Saghalin Island; thence down the coasts of Yesso and Nippon, through the Strait of Simonoseki and the Inland Sea, and up the Pacific coast of Nippon from Tanabe to Yeddo Gulf where some time was spent in Tateyama Bay (lat. 35° N., lon. 139° 48' E.) in August, 1861. Years before, Adams as surgeon of H. M. S. "Samarang" had visited the southwestern islands of the Riukiu Curve, and collected some land shells.

following these type localities are located, and a list of species from each of them compiled from Adams' paper, is given. In square brackets some critical notes find place. For greater convenience I have dealt with all of Adams' localities, those well known with the others.

It may be as well to say that A. Adams' identifications of land shells are often open to doubt.

RIFUNSIRI.

Rebun-shiri is a small, rugged island, west of the north end of Yesso, near and southeast of Rishiri. The "Actæon" was there September 15, 1859. So far as I know no naturalist has visited the island since.

Limax varians A. Ad.

Helix (*Camæna*) *miranda* A. Ad.

RISIRI.

A snow-capped volcanic peak.

Limax varians A. Ad.

Helix (*Camæna*) *editha* A. Ad.

HAKODADI.

Hakodate, Prov. Ojima, Yesso.

Limax varians A. Ad.

Succinea lauta Gld.

Helix (*Acusta*) *lata* Gld. [= *Eulota* (*Mastigeulota*) *gainesi* var. *hakodatensis* Pils.].

Helix (*Camæna*) *pyrrhizona* Ph. [= *Eulota* (*Cathaica*) *fasciola* Drap., sole record of the species from Japan, and requiring confirmatory evidence].

Helix (*Patula*) *paupera* Gld. [= *Pyramidula paupera* Gld.].

Hyalina (*Conulus*) *labilis* Gld.

MATSUMAI.

At the southern point of Yesso, Province Ojima; otherwise known as Fukuyama.

Helix (*Acusta*) *lata* Gld. [see above].

Helix (*Fruticicola*) *japonica* Pfr. [only record extant of *Ganesella japonica* from Yesso].

Helix (*Patula*) *paupera* Gld.

Hyalina (*Conulus*) *tenera* A. Ad.

Also, *Blanfordia bensoni* A. Ad.

TABU-SIMA.

Tabu-shima or Tobi-shima is a small island off Ugo Province, lying near the west coast of Nippon, about eighty miles northeast of Sado Island. In his *Travels*, p. 257, Adams writes of it as "a small island about thirty miles from Niegata in Nippon"; but it is nearer eighty miles from Niigata. The name appears on some maps as Tobi-shima or Tabo-shima. It is nearly opposite the peak Tshiō-kai-san, on the mainland of Nippon. The following species are recorded:

Philomyces bilineatus Bs.

Helix (Camæna) quæsitæ Dh. [*Eulota (Euhadra) quæsitæ*].

Helix (Fruticicola) japonica Pfr. [*Ganesella*].

Helix (Fruticicola) patruelis A. Ad. [= *Ganesella tabuensis* Ancey].

Helix (Plectotropis) ciliosa Pfr. [probably an error].

Helix (Plectotropis) conella A. Ad.

Hyalina (Conulus) incerta A. Ad.

Clausilia martensi Herkl.

This place is also type locality of *Helicina japonica* A. Ad.

AWA-SIMA.

Awo-shima on Hassenstein's map. An islet northeast of Sado. It is not mentioned in Adams' *Travels*. It is off the north end of Echigo Province.

Helix (Plectotropis) ciliosa Pfr. [probably an error].

Helix (Plectotropis) setocincta A. Ad.

Helix (Plectotropis) scabricula A. Ad.

Clausilia pluviatilis Bs. [doubtless an error].

Clausilia valida Pfr. [doubtless an error].

Clausilia stimpsoni A. Ad.

SADO.

The largest island on the west coast of Nippon, in 38° N. lat., mentioned in *Travels*, p. 259.

Helix (Acusta) sieboldiana Pfr.

Helix (Camæna) quæsitæ Desh.

Helix (Plectotropis) setocincta A. Ad.

Also type locality of *Blanfordia japonica* A. Ad.

DAGALET ISLAND.

Now known as Matsu-shima. A small and little-known island in the Sea of Japan, east of Corea. See *Travels*, p. 174. Adams visited the island, which is inhabited or at least used as a *Haliotis*-fishing station by Coreans, on the 28th of June, 1859. It is densely wooded, with a central peak 4,000 feet high. In the *Travels*, p. 178, a slug "with the mantle covering the whole of its back" (probably *Philomyces*) and a *Zua* (*Cochlicopa*) are mentioned. In the paper on Japanese Helicidæ only two species are given:

Helix (*Camæna*) *luhuana* Sowb. [?].

Helix (*Patula*) *elatior* A. Ad.

It is the only locality for the latter species. The identification of *H. luhuana* is doubtful.

TSU-SIMA.

Tsushima, in the Corean Strait, is a locality prolific in land snails. Adams reports the following:

Helix (*Acusta*) *sieboldiana* Pfr.

Helix (*Camæna*) *orientalis* A. and R. [The specimens recorded were probably *E. luhuana tsushimana* Mildff.].

Helix (*Plectotropis*) *ciliosa* Pfr. [?].

Helix (*Plectotropis*) *sqarrosa* Gld. [??].

Helix (*Plectotropis*) *trochula* A. Ad.

Hyalina? *nitida* Mill. [only record from Japan. Probably wrong].

Hyalina (*Microcystis*) *rejecta* Pfr. [only record from Japan. Probably wrong].

Hyalina (*Conulus*) *stenogyra* A. Ad. [*Kaliella*].

Clausilia sieboldi Pfr.

Clausilia stimpsoni A. Ad.

NANGASAKI (NAGASAKI).

In addition to the species given below, Adams states in his *Travels* that he got *Hadra peliomphala*, *Satsuma japonica* and *Acusta sieboldiana* at Nagasaki (p. 268). The first two are improbable.

Helix (*Acusta*) *conispira* Pfr.

Helix (*Camæna*) *orientalis* A. and R. [What he found was probably *E. luhuana*].

Helix (*Fruticicola*) *genulabris* Mart. [= *E. similaris* var.].

SIMONOSEKI.

A town of Nagato Province, on the strait of the same name. Hassenstein prefers the name Akamagashiki.

Helix (*Fruticicola*) *stimpsoni* Pfr. [= *Eulota similaris* var.].

MOSOSEKI.

A village at the northern point of the Province Buzen, Kyūshū, on the Strait of Simonoseki, and spelled "Mosi" on some maps. It is the "Moji" of Hassenstein's folio map of 1885.

Helix (*Acusta*) *sieboldiana* Pfr.

Helix (*Camæna*) *peplomphala* Pfr. [probably *E. callizona* *maritima* G. and P.].

Helix (*Camæna*) *orientalis* A. and R. [probably *E. luhuana* Sowb.].

Helix (*Fruticicola*) *commoda* A. Ad.

Helix (*Fruticicola*) *despecta* A. Ad.

Hyalina (*Conulus*) *phyllophila* A. Ad.

Clausilia *lirulata* A. Ad.

TANABE.

On the southern coast of Province Kii, near the entrance of Kii channel. Only the last species has been recognized by later authors. The first two belong to *Ganesella*.

Helix (*Fruticicola*) *peculiaris* A. Ad.

Helix (*Fruticicola*) *gibbosa* A. Ad.

Clausilia *plicilabris* A. Ad. [= *C. aurantiaca* var.]

TAGO.

The location of this place caused me some trouble, from the conflicting data given by Adams. In one place he speaks of Tago, on the shores of the Inland Sea, while again he writes,³ "not far from Tatiyama is a snug little harbour called Tago."

On application to the Hydrographic Department of the British Admiralty, I learned that "The 'Actæon' spent some time in

³ *Travels of a Naturalist in Japan and Manchuria*, p. 311.

Tago Bay, Suruga Gulf, in September, 1861, and there is no doubt that this is the place referred to, lat. $34^{\circ} 48' N.$, long. $138^{\circ} 45' E.$ "

The following species were obtained; only the first two have been recognized with certainty by subsequent authors:

Helix (*Camæna*) *peplomphala* Pfr.

Helix (*Camæna*) *myomphala* Mart. [*Ganesella* m.].

Helix (*Fruticicola*) *textrina* Bens. [certainly an error].

Helix (*Fruticicola*) *sphinctostoma* A. Ad. [*Ganesella*].

Helix (*Fruticicola*) *collinsoni* A. Ad.

Helix (*Fruticicola*) *concinna* A. Ad.

Hyalina (*Conulus*) *acutangula* A. Ad.

Clausilia *gouldi* A. Ad.

Clausilia *spreti* A. Ad.

In the *Travels* Adams mentions finding "thousands of *Realia*" (p. 312).

SIMODA.

At the southern end of the peninsula formed by the Province Izu, and notable as being the place first set apart for the use of Americans, at the time of Commodore Perry's visit to Japan.

Helix (*Camæna*) *quærita* Dh.

Helix (*Camæna*) *simodæ* Jay.⁴

Helix (*Fruticicola*) *similaris* Fér.

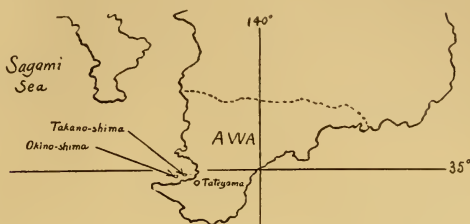
TAKANO-SIMA AND OKINO-SIMA.

Takano-shima and Okino-shima have been two of the most problematic of Adams' localities, as the places to be found under these names on Occidental maps are not those visited by the "Actæon." The first clue I had to their true location was from the *Travels*, p. 309, where Adams states that "on the east coast of Nippon and not far from Tatiyama are two small islets named Takano-Sima and Okino-Sima"

On ordinary maps these islets are not even indicated. Hassenstein, on sheet IV of the folio atlas, maps them minutely, but without names. Referring to a large-scale Japanese atlas in 47 sheets, I found the islets were duly indicated, and the names when

⁴ Adams gives *H. herklotsi* Martens as a synonym of *simodæ*, which is far from being the case.

translated⁵ proved them to be the islands of Adams. Under the circumstances I have thought it not superfluous to give a sketch-map



of so much of the southern end of Awa Province⁶ as is necessary to show the location of these type localities. At Taka-no-shima ("Island of Taka") only one terrestrial species was taken, *Philomycus bilineatus* Bens., probably = *P. confusus* Ckll.

Oki-no-shima, or as A. Adams, from some erroneous notion, transposes it in some places, "Kino-O-Sima," lies west of Taka-no-shima. The following species are recorded, only the first one having been recognized by recent students of Japanese snails:

Helix (Fruticicola) similaris Fér.

Helix (Fruticicola) craspedocheila A. Ad.

Helix (Fruticicola) proba A. Ad.

Helix (Plectotropis) squarrosa Gld. [probably *Plectotropis vulgivaga*].

Hyalina? electrina Gld. [probably an error].

Clausilia stenospira A. Ad.

Clausilia proba A. Ad.

Clausilia pinguis A. Ad.

In the *Travels*, p. 310, Adams mentions taking *Helix simodæ* and a little *Bulimulus*, and on the next page records *Peronia tongana* from this place.

⁵ Mr. Benjamin Smith Lyman, formerly of the Pennsylvanian and Japanese Geological Surveys, was so good as to translate these as well as many other Japanese place-names.

⁶ It may be needless to mention that there are two provinces called Awa:—that intended here, lying east of the entrance to Tokyo Bay, and another in the eastern part of Shikoku Island.

APPENDIX.

Although not properly coming within the scope of this writing, it may be useful to list A. Adams' species from the Russian Maritime Province and Saghalin Island; the latter especially, from being adjacent to Yesso, is of interest to Japanese zoologists. In the *Travels* Adams mentions finding *Acusta lata* at Sio-wu-hu Bay, on the Manchurian coast. I am disposed to think what he found was some allied form, not the Yesso species.

OLGA BAY.

On the mainland of Asia, west from Yesso.

Succinea putris L. [?].

Helix (*Camæna*) *pyrrhozona* Ph. [= *Eulota* (*Cathaica*) *fasciola* Drap.].

Helix (*Camæna*) *simodæ* Jay. [no doubt an erroneous identification].

Helix (*Patula*) *pauperæ* Gld.

VLADIMIR BAY.

Near Olga Bay, also in the Maritime Province, on the mainland.

Succinea lauta Gld.

Succinea putris L. [?].

Helix (*Camæna*) *simodæ* Jay. [?].

Helix (*Camæna*) *pyrrhozona* Ph. [= *E. fasciola* Drap.].

Helix (*Camæna*) *edithæ* A. Ad.

Helix (*Patula*) *depressa* A. Ad.

Hyalina (*Pseudohyalina*) *minuscule* Binn.

Hyalina (*Conulus*) *pupula* Gld.

NEAR CAPE NOTORO.

The southern cape of Saghalin Island.

Helix (*Camæna*) *serotina* A. Ad.